

WHAT IS CLAIMED IS:

1. An operation microscope comprising:

an observation optical system including an objective lens opposed to an eye to be operated;

an illumination optical system for guiding illumination light from a light source to a vicinity of an optical axis of the observation optical system; and

a deflection means for deflecting the illumination light guided to the vicinity of the optical axis of the observation optical system by the illumination optical system and guiding the illumination light to the eye to be operated through the objective lens,

wherein the deflection means includes a pair of deflection members which are a first deflection member for guiding a first part of the illumination light at a predetermined oblique angle with respect to the optical axis of the observation optical system and a second deflection member for guiding a second part of the illumination light at an oblique angle substantially equal to the predetermined oblique angle with respect to the optical axis simultaneously with guiding of the first part of the illumination light by the first deflection member, the second deflection member being disposed in an opposite side to the first deflection member so as to sandwich the optical axis of the observation optical system therebetween.

2. An operation microscope according to claim 1, wherein one deflection member of the pair of deflection members is disposed between the illumination optical system and the optical axis of the observation optical system and the other deflection member is

disposed in an opposite side to the one deflection member so as to sandwich the optical axis of the observation optical system therebetween.

3. An operation microscope according to claim 1 or 2, wherein each of the pair of deflection members guides the part of the illumination light to the eye to be operated at an oblique angle of 1.5 to 2.5 degrees, preferably, 2 degrees with respect to the optical axis of the observation optical system.

4. An operation microscope according to any one of claims 1 to 3, wherein the deflection means further includes a third deflection member that guides a third part of the illumination light to the eye to be operated at an oblique angle larger than those for the pair of deflection members with respect to the optical axis of the observation optical system.

5. An operation microscope according to claim 4, further comprising an emitting region adjusting means for adjusting an emitting region of the illumination light from the light source to switch the deflection members each guiding the part of the illumination light to the eye to be operated,

wherein any one of the pair of deflection members, the third deflection member, or a combination of one of the pair of deflection members and the third deflection member is selected based on adjustment of the emitting region of the illumination light by the emitting region adjusting means and the part of the illumination light is guided by the selected deflection member.

6. An operation microscope according to claim 5, wherein the emitting region adjusting means comprises of a shielding disk having slots provided on its periphery to form the emitting regions and shielding disk driving mechanism formed with a control circuit including a stepping motor, a photo sensor and a foot switch.

7. An operation microscope according to claim 4 or 5, wherein one deflection member of the pair of deflection members and the third deflection member are integrally formed.

8. An operation microscope according to claim 1, wherein the observation optical system includes a pair of optical systems composed of an optical system for guiding observation light to a left eye of an operator and an optical system for guiding observation light to a right eye thereof,

the operation microscope further comprising: an optical axis position changing means for changing relative positions of optical axes of the right and left observation lights guided to the pair of optical systems; and

a shifting means capable of retreating at least one of the pair of deflection members and locating the optical axis position changing means on optical paths of the right and left observation lights.

9. An operation microscope according to claim 8, wherein the optical axis position changing means is provided near one deflection member of the pair of deflection members and at an opposite position thereto with respect to the optical axis of the observation optical system, and

wherein the one deflection member and the optical axis position changing means are integrally shifted by the shifting means.

10. An operation microscope according to claim 8 or 9, wherein the one deflection member of the pair of deflection members is disposed between the illumination optical system and the optical axes of the right and left observation lights, the other deflection member is disposed in an opposite side to the one deflection member to sandwich the optical axes of the right and left observation lights therebetween, and

wherein the shifting means retreats the other deflection member to one deflection member side and shifts the optical axis position changing means so as to locate the optical axis position changing means on the optical paths of the right and left observation lights.